

PHENIX WEEKLY PLANNING



April 17, 2014
Don Lynch

This Week

TECHNICAL SUPPORT NO-14

- Run 14 Continues
- Access yesterday:
 - MPC-Ex adjustments made at rack, no FEM access; FEM access req'd next time
 - DC West Trouble shooting and repair
- No access planned for nextweek, next access 4/30
- Plan for 2014 Shutdown
- Tech Support for Run 14 as required
- Support for sPHENIX efforts as required

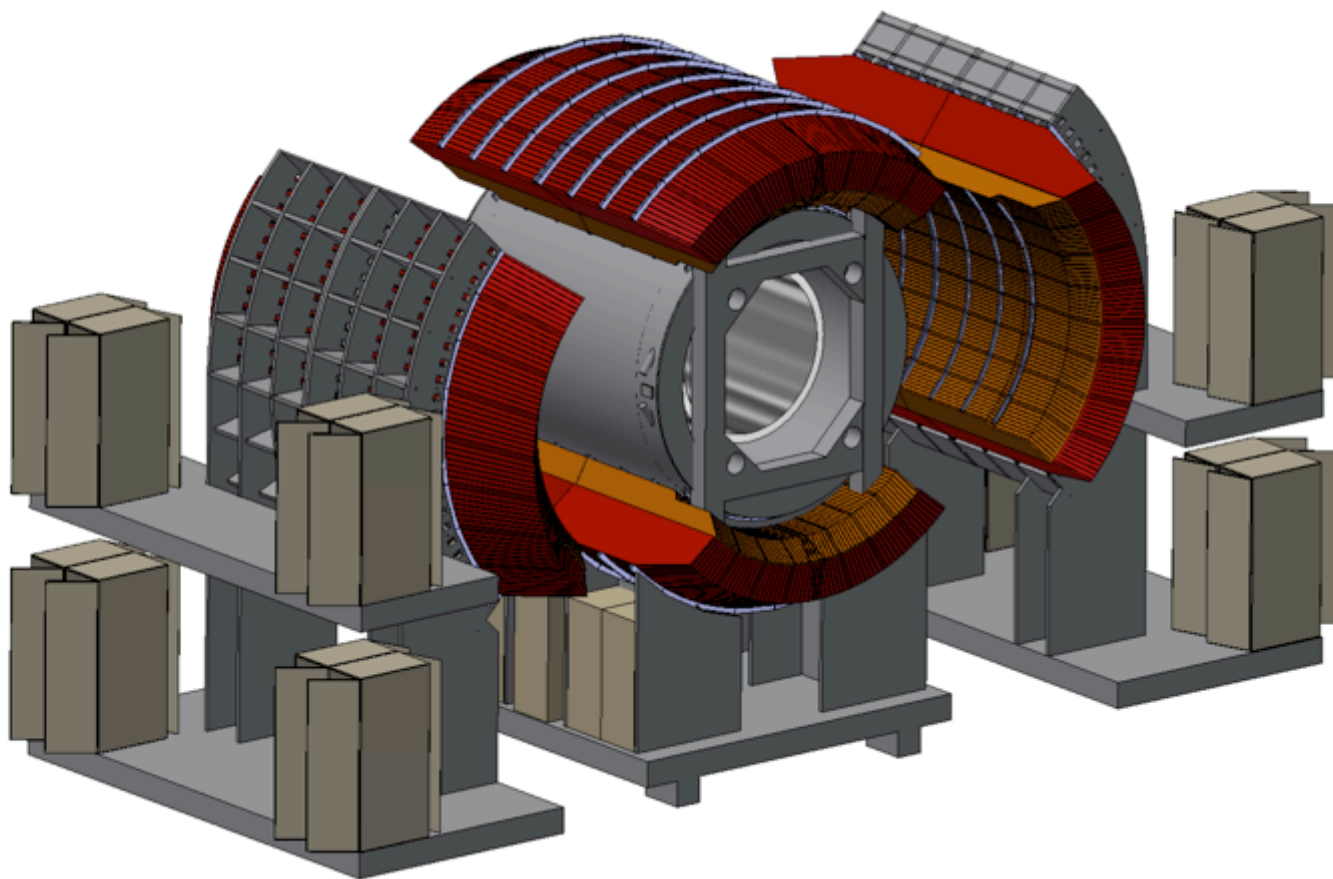


4/17/2014

Next Week

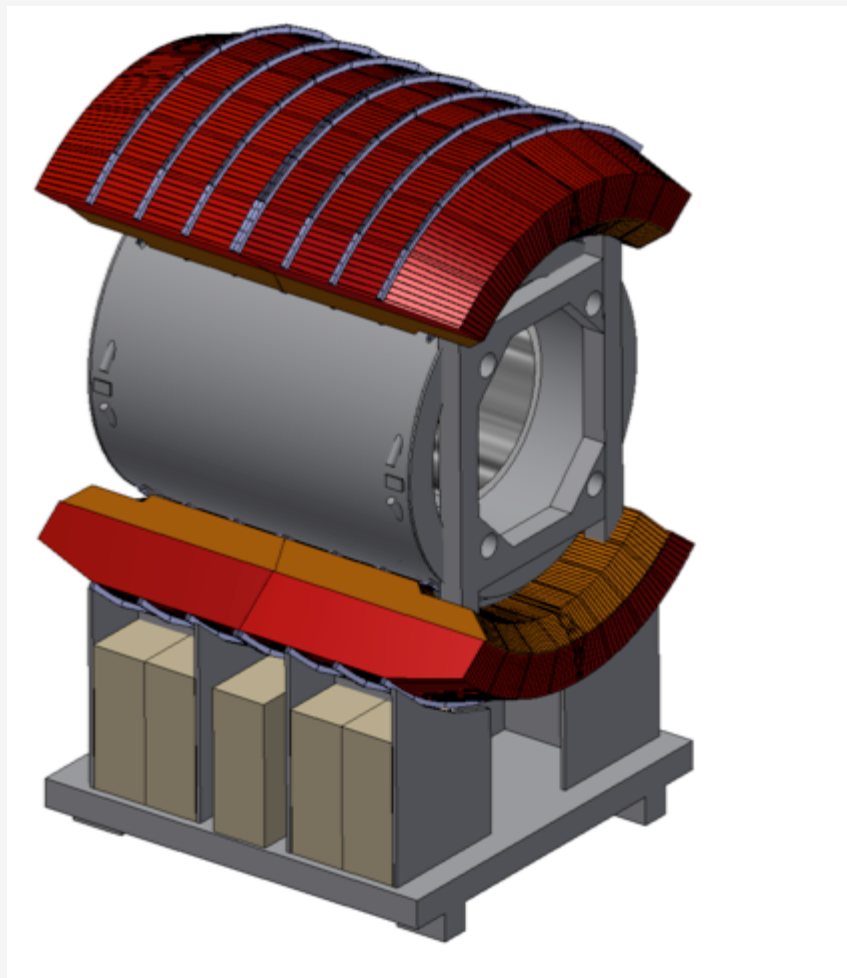
- Run 14 Continues
- No access next week, next access 4/30:
 - MPC-Ex tweaking (access to FEMs required)
 - Other requests?
- Plan for 2014 Shutdown
- Tech Support for Run 14 as required
- Support for sPHENIX efforts as required

sPHENIX “Outie” Concept



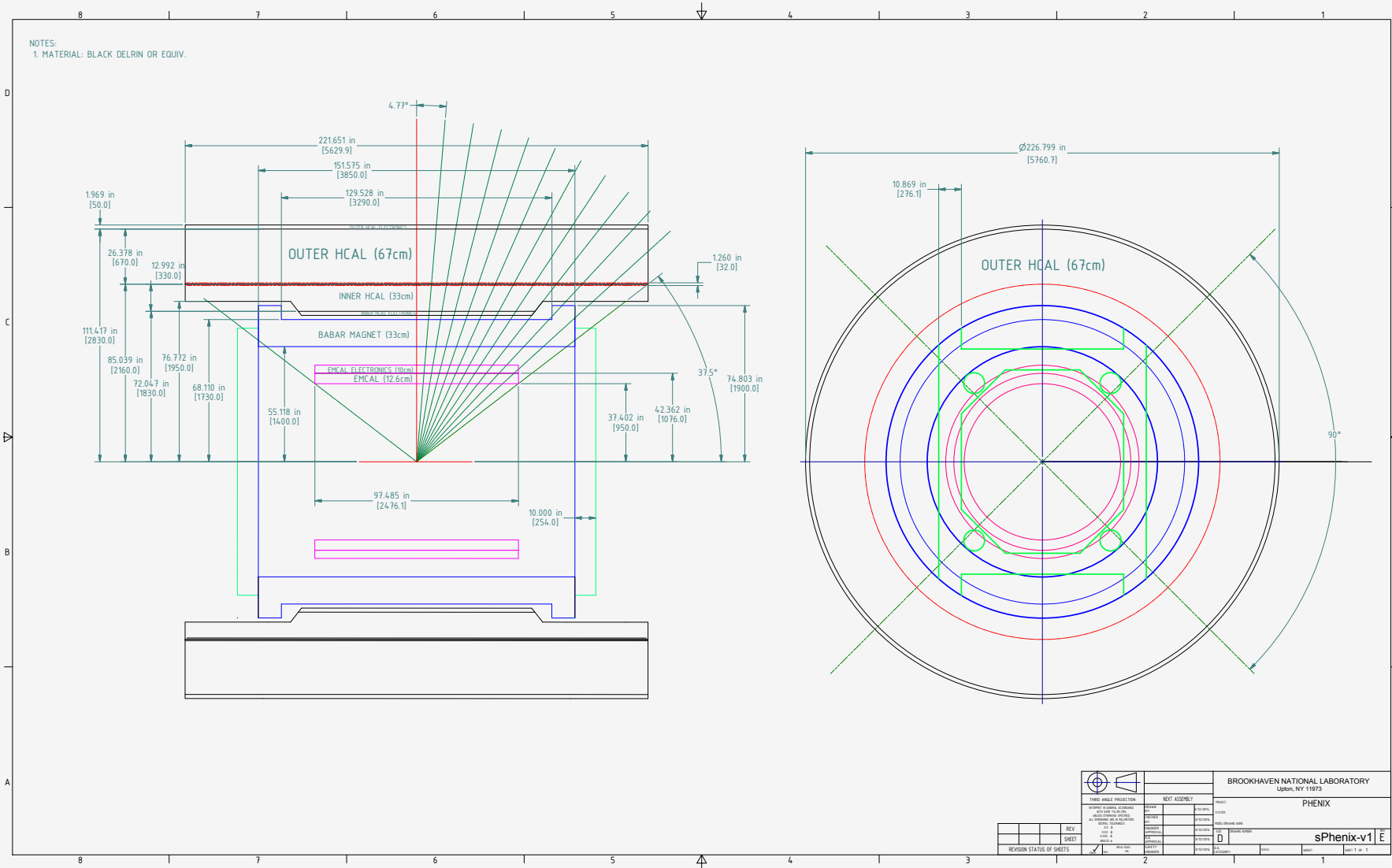
This is the design we will continue to pursue until if and when a final decision directs us to the "innie" option

HCal Central Pedestal



V1

4/17/2014



sPHENIX Major Subsystem Envelope Drawing, rev E

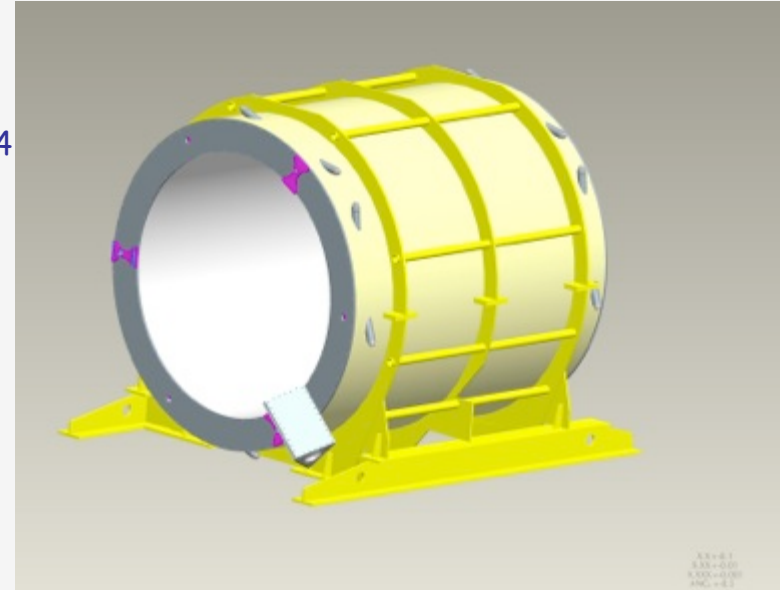
4/17/2014

Major Subsystems/Subtopics:

- Magnet (BABAR) (Magnet Div) start 2/1/14 - 12/31/2018
- Hadronic Calorimeter (HCAL) (PHENIX) start 2/1/14 - 12/31/2020
- EM Calorimeter EMCal (PHENIX) start 2/1/14 - 12/31/2020
- VTX (RIKEN) start 2/1/14 - 12/31/2020
- DIRC (?) start ? - 12/31/2020
- VTX additional layers (RIKEN) start ? - 12/31/2020
- Carriage Support structure (PHENIX) start 2/1/14 - 12/31/2020
- Readout Electronics (PHENIX) start 2/1/14 - 12/31/2020
- Infrastructure (PHENIX ++)
- Electrical Power Services (PHENIX) start ? - 12/31/17
- Instrumentation Support start ? - 12/31/2020
- (Signal trays & Racks) (PHENIX)
- Cryo Services (CAD) start 2/1/14 - 8/1/18
- Cooling water (CAD) start ? - 12/31/2017
- Safety Systems (PHENIX) start ? - 12/31/2020
- Work Platforms and Access/Egress start ? - 12/31/2017
- Structures (CAD)
- HVAC (CAD) start ? - 12/31/2017
- PHENIX Decommissioning start ? - 6/30/2017
- (CAD, PHENIX)
- System Integration (PHENIX) start 2/1/14 - 12/31/2020
- Testing (PHENIX) start 2/1/14 - 12/31/2020
- Installation (PHENIX, CAD) start 2/1/14 - 12/31/2020
- Commissioning (PHENIX) start 2/1/14 - 12/31/2020

Magnet (BABAR) (Magnet Div)

- | | |
|---|---------|
| • Acquire rights | Done |
| • Evaluate Transport | 5/1/14 |
| • Design Transport fixtures | |
| • Fabricate Transport Fixtures | 5/1/14 |
| • Evaluate BNL test facility requirements | 6/1/14 |
| • Prepare test facility | 8/1/14 |
| • Install Transport fixtures | |
| • Transport to BNL | 9/1/14 |
| • Install in test facility | 10/1/14 |
| • Design tests/test equipment | 10/1/14 |
| • Fabricate/procure test equipment | 1/1/15 |
| • Run tests | 6/1/15 |
| • Design Magnet modifications | 12/1/14 |
| • Fabricate magnet modifications | 6/1/15 |
| • Install magnet modifications | 8/1/15 |
| • Evaluate final installation | 9/1/15 |
| • Design installation support equipment | |
| • Fabricate/procure support equipment | |
| • Transport to IR | |
| • Install | |
| • Test | |
| • Commission | |

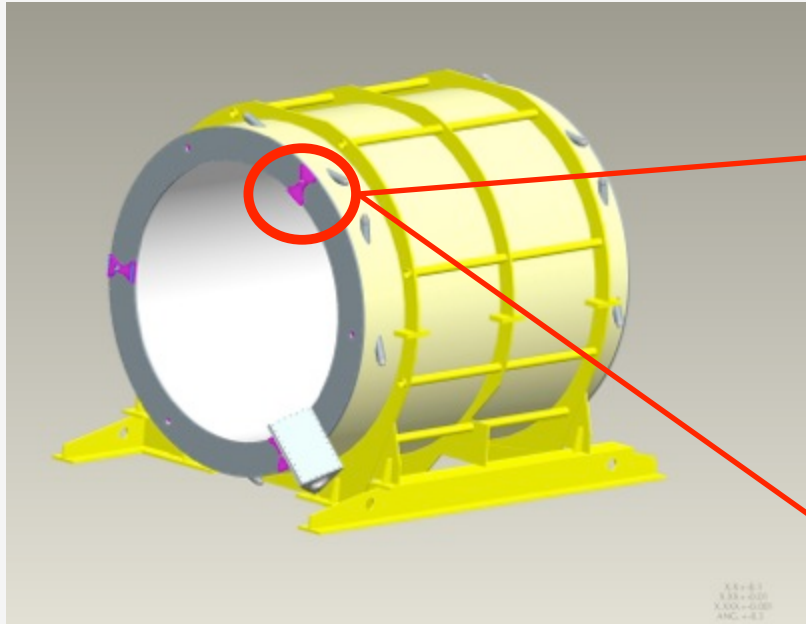


April 17, 2014

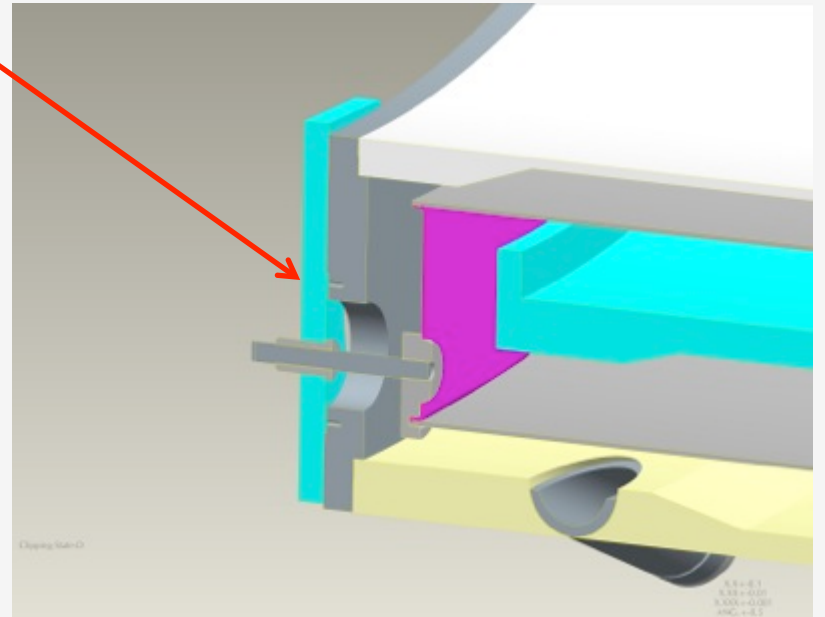
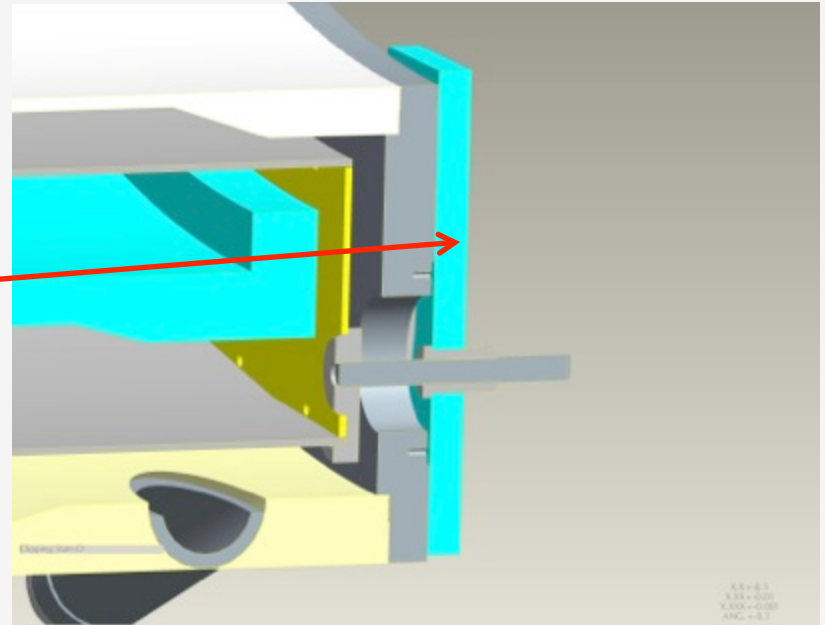
sPHENIX Mechanical
Design

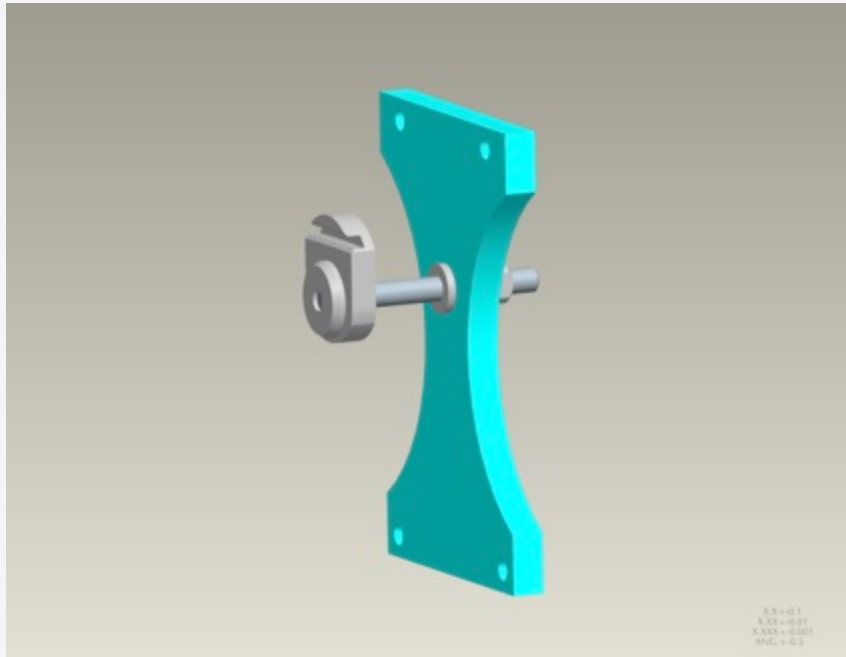
Meeting Yesterday about magnet issues:

- Plan for transport is evolving quickly
- Plan for testing is beginning to gel
- Magnet division and CAD working together
- Good size group
- Several important issues brought up
- Need envelope to consider redesign of chimney



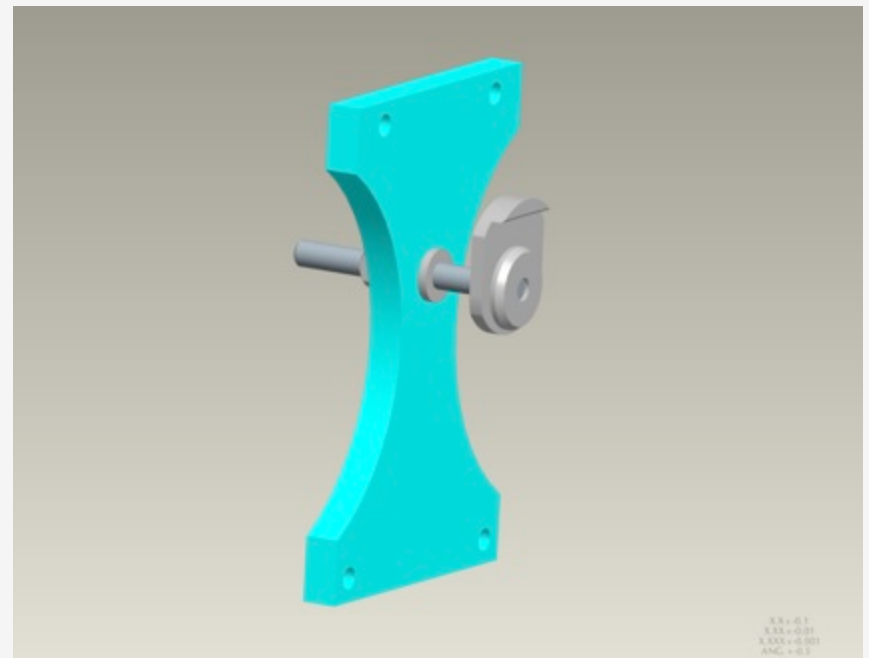
BABAR Magnet Shipping Fixtures





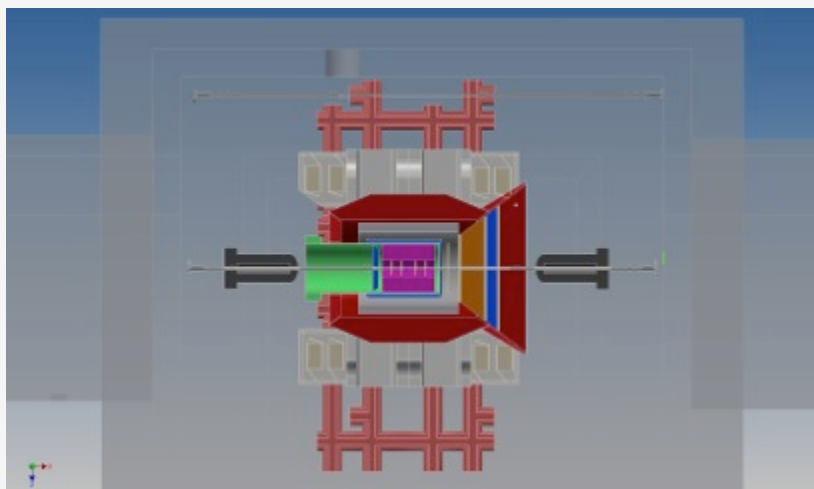
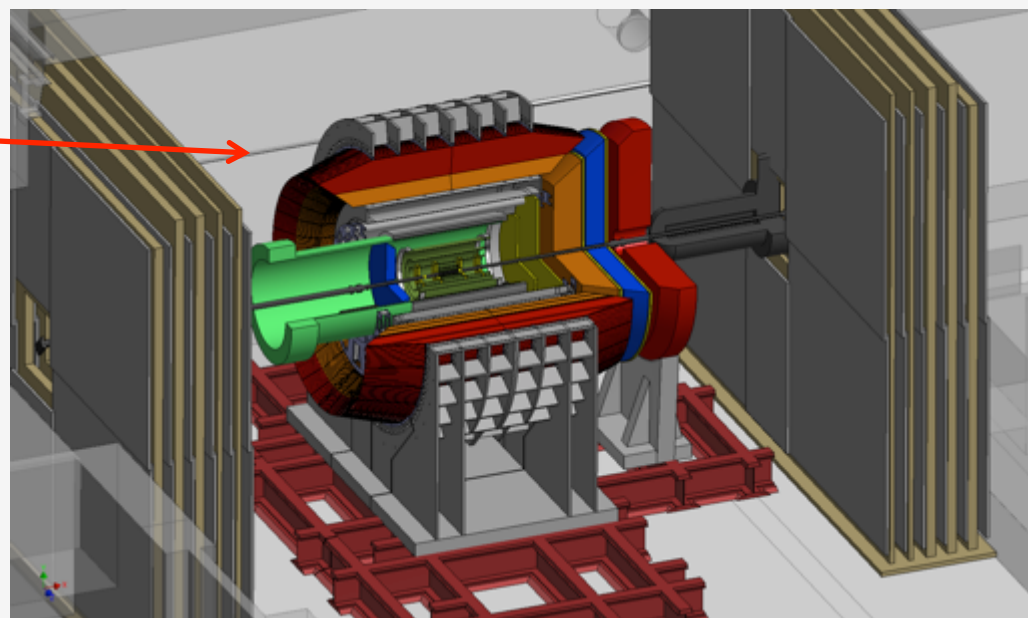
BABAR Magnet Shipping Fixtures:

3 of each required to immobilize
the cold mass heat shield

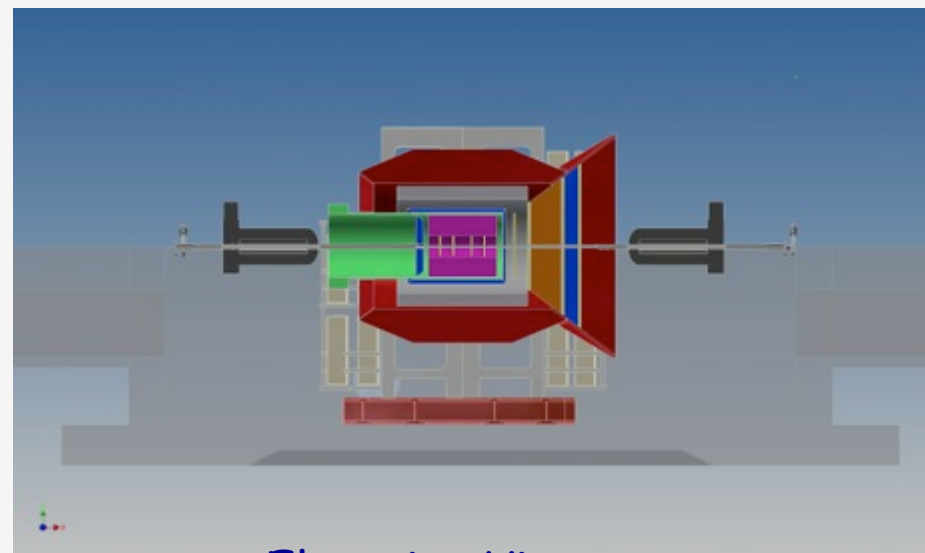


2ft high x 1 ft
wide clearance
needed for e-ring
components

ePHENIX



Plan View



Elevation View

4/17/2014

“ IF EVERYONE IS MOVING
FORWARD TOGETHER,
THEN SUCCESS TAKES
CARE OF ITSELF. ”

– Henry Ford

2014 planned Technical Support & 2014 Shutdown

TECHNICAL SUPPORT 2014

Support for run 14	2/3-6/30/2014
Procure & Fabricate parts for MPC-Ex North and South	1/1/2014-6/30/2014
Assemble & test MPC-Ex South, ready for installation	3/1-7/1/2014
End of Run Party	7/11/14?
Assemble & test MPC-Ex North, ready for installation	7/1-9/25/2014
Start of Shutdown Tasks (purge flammable gas, disassemble and stow shield wall, remove collars, move EC to AH, Move MMS south, etc.)	7/14 - 7/25/2014
Remove FVTX/VTX East to PHYSICS?, repair and reinstall	7/14 - 9/15/2014
Remove MMS east vertical lampshade	7/28-7/30/2014
Troubleshoot intermittent water leak in MMS	7/30- 8/8/2014
Other Maint. In MMS	TBD
Reinstall MMS east vertical lampshade	TBD
Summer Sunday prep AH, tours and restore AH	7/30-8/15/2014
Install scaffolding in Sta 1 South	7/28/2014
Remove MPC-Ex prototype, Install new MPC-Ex South	7/28-8/22/2014
Maint. & Repairs for MPC South, BBC South, RPC1 South, MuTr sta 1 South, as necessary	7/28-8/22/2014
Remove scaffolding from sta 1 south, Move CM South	8/25/2014
Install scaffolding in Sta 1 North	8/26-8/29/2014
Prep MPC-Ex North installation area	9/1-9/26/2014
Install new MPC-Ex North	9/29-10/17/2014
Remove Sta 1 North scaffolds, Move CM North	10/20-10/24/2014
Other detector support	TBD
Infrastructure Maintenance and Improvement	TBD
Decommissioning of obsolete PHENIX detector equipment	TBD
sPHENIX Support	on-going
End of Shutdown Tasks (Move MS north, roll in EC , install collars, remove 10 ton cart, plates and manlifts, build shield wall, etc.)	10/27-11/26/2014
Pink/White/Blue Sheets	1/17/2014
End of Shutdown Party	???
Start Flammable gas flow	???
Close shield wall, install radiation interlocks and prepare for run 14	12/31/2014
Start run 15	1/2/2015

Safety and Security

From Michael Hauptmann: Lessons learned from a DOE Savannah River Site:

Electric Power Tool Accident Results In Severed Finger Tendon

- **Lessons Learned Statement:**

An SRNL employee, cutting plastic drums with a sawzall, cut a finger and severed a tendon due to improper work controls.

- **Discussion:**

The employee was cutting 30-gallon poly drums in half for waste minimization at the 786-A facility. The employee was using a Milwaukee Heavy Duty Orbital Super Sawzall to cut the drums, and was turning the drums upside down and cutting the sides first, and then cutting through the bottom of the drum last to complete the cut (when upside down the bottom was about at waist level).

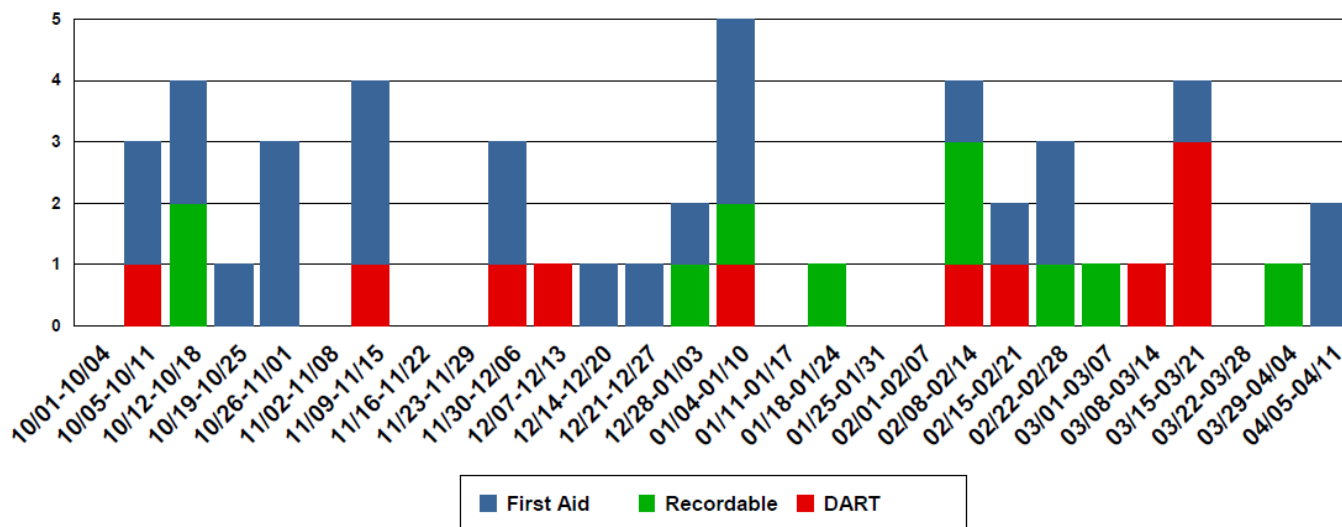
The employee was finishing a cut through the bottom of the drum when the saw jumped out of the cutting path and the blade struck the employee on the top of the employee's middle finger and cut a tendon. The employee was wearing work gloves at the time along with a lab coat and safety glasses.

- **Initial Lessons Learned From This Event:**

1. The tool selected presented an unnecessary hazard - a lighter, less energetic tool would have been appropriate.
2. The cutting operation was being done without the drum being anchored - requiring the individual to use one hand to hold the drum at the completion of the cut.
3. When the worker had difficulty with the cutting operation, a "time-out" was not taken.
4. The necessity of this person and organization doing this operation (size reduction for waste disposal) was not evaluated by management.

PHENIX Safety and Security

Injuries Per Week (FY)
As of 4/11/2014



Injury Status:

FY14 YTD: DART – 11, TRC – 21, First Aid – 26

FY13: DART – 15, TRC – 38, First Aid – 53

FY12: DART – 19, TRC – 36, First Aid – 69

FY13 Injury Listing: <https://intranet.bnl.gov/esh/shsd/seg/OccInj/BNLINjuries.aspx>

Recent Injuries

4/8/14	First Aid	An employee reported to the OMC with an exacerbation of intermittently occurring numbness and tingling in their left fingers. First aid was given and the employee returned to normal duties.
4/8/14	First Aid	An employee reported leg and arm pain to the OMC. The employee received first aid treatment and was advised to check in with the OMC on the following day. The worker was approved to return to work without restrictions on the following day.

4/17/2014



Recent Events

7/9/14	Non-Reportable	While installing a soap dispenser, a worker drilled a screw into a water pipe behind the wall surface. The wall was scanned prior to drilling and indicated no obstructions. There were no injuries, and an investigation is underway. Repairs have been initiated. (Event Link)
4/7/14	Non-Reportable	Pieces of broken material, suspected of being transite panels, were identified in a dumpster associated with an ongoing construction project. Transite is an asbestos-containing material that requires specific handling and disposal protocols. The material in the dumpster had been removed from a former fire extinguisher hood. Upon discovery, the dumpster was covered to prevent weather intrusion and properly labeled. The material is being sampled with results expected in a few days, after which the potential for personnel exposure will be assessed. (Event Link)

4/17/2014



17

Where To Find PHENIX Engineering Info

Run 14 Continues!



http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

4/17/2014



Video of the Week

Innovation